

# ALA American Library Association

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Ms. Lauren Wilson  
Legal Advisor, Office of the Bureau Chief  
Consumer and Government Affairs Bureau  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

***Re: Lifeline and Link Up Reform and Modernization (WC Docket No. 11-42)***

Dear Ms. Wilson,

Thank you for joining the American Library Association (ALA) at our Annual Conference in Orlando, and for participating in many public conversations—including the Schools, Health and Libraries Broadband Coalition (SHLB) Conference—to provide updates of your work on the Federal Communications Commission’s (FCC) digital inclusion plan. While the FCC’s recent modernization of the Lifeline program represents an important step forward in addressing cost barriers to broadband adoption, much more work is needed to bring online as many as 33 percent of Americans<sup>1</sup> who lack home broadband connections. The need is great, and the FCC must be central to the solution, which is acknowledged by Commission leadership.

For these reasons, ALA is particularly pleased the Consumer and Government Affairs Bureau (CGB) is tasked to develop a comprehensive plan for the Commission to better understand the non-price barriers to digital inclusion and to propose how the Commission can best address these barriers.<sup>2</sup> As you develop this plan, we would like to share libraries’ experience in this area, as well as relevant research and recommendations for your consideration and that of the Commissioners.

As background, the ALA is the oldest and largest library association in the world with more than 58,000 members. There are 120,000 libraries across the United States. Together, we have a long history of advocacy for digital inclusion policies and front-line programs and services dating back decades. The massive workforce retooling and digital upskilling demanded in the wake of the Great Recession, combined with the vision of the National Broadband Plan<sup>3</sup> and the resources invested through the Broadband Technology Opportunities Program<sup>4</sup> have advanced libraries’ capacity and role in building digital competencies for our patrons. Most recently the ALA has advocated for modernization of the E-

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<sup>1</sup> Pew Internet Project, 2015: <http://www.pewinternet.org/2015/12/21/home-broadband-2015/>

<sup>2</sup> FCC Lifeline Modernization Order, paragraphs 379-384. [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-16-38A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-38A1.pdf)

<sup>3</sup> National Broadband Plan, Section 9

<sup>4</sup> US Public Libraries and BTOP: <http://www.districtdispatch.org/2013/05/libraries-and-btop-strengthen-communities/>

rate<sup>5</sup> and Lifeline<sup>6</sup> programs and served as a national partner with the U.S. Department of Housing and Urban Development for ConnectHome.<sup>7</sup>

America's libraries constitute a national infrastructure already deeply engaged in addressing skills gaps with digital literacy, relevance with contextual training and digital content, and even adding capacity for people seeking high-speed broadband and technology tools ranging from 3D printers to video conferencing to digital media production studios.

### **Defining the problem**

The benefit and the challenge of where we find ourselves today is that a large body of work we may draw on has already been developed exploring the dimensions and effective practices related to broadband adoption (see Appendix for an annotated list of some of the research and data recently available) —and, at the same time, broadband adoption rates are uneven and appear to have recently plateaued.<sup>8</sup> Fulfilling a vision of universal digital inclusion<sup>9</sup> demands collective action at all levels and targeted approaches to bring online those who lag furthest behind.

The Leadership Council on Civil Rights has outlined many of these adoption disparities. While 92 percent of households with incomes over \$100,000 have broadband service, the adoption rate is only:

- 47 percent for households with income below \$25,000;<sup>10</sup>
- 64 percent for African Americans and 53 percent for Hispanics;<sup>11</sup>
- 62.5 percent for people with disabilities;<sup>12</sup> and
- 50.6 percent for people with limited English proficiency;<sup>13</sup>

As the Commission noted in the Lifeline Order, lack of digital literacy and perceived relevance are significant non-price barriers to broadband adoption. We will explore both the terms “digital literacy” and “relevance” further, but first would note that low-cost broadband adoption programs and research also documents the need for hardware (e.g., laptops and tablets) and software to successfully bring people online. ConnectHome,<sup>14</sup> EveryoneOn<sup>15</sup> and Comcast Internet Essentials,<sup>16</sup> for instance, all include access to low-cost broadband, low-cost devices (often laptops and tablets), and digital literacy training as a package. Similarly, Colin Rhinesmith identified in his recent research four essentials for digital inclusion:

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<sup>5</sup> <http://www.ala.org/advocacy/telecom/erate>

<sup>6</sup> <https://ecfsapi.fcc.gov/file/60001223331.pdf>

<sup>7</sup> [www.ala.org/connecthome](http://www.ala.org/connecthome)

<sup>8</sup> PEW 2015: <http://www.pewinternet.org/2015/12/21/home-broadband-2015/>

<sup>9</sup> Digital Inclusion is the ability of individuals and groups to access and use information and communication technologies. Digital inclusion encompasses not only access to the Internet but also the availability of hardware and software; relevant content and services; and training for the digital literacy skills required for effective use of information and communication technologies.

<https://www.imls.gov/assets/1/AssetManager/DIC-FrameworkBrief.pdf>

<sup>10</sup> Computer and Internet Use in the United States: 2013 (American Community Survey Reports, Nov. 2014), Table 1, available at: <http://www.census.gov/history/pdf/2013computeruse.pdf>.

<sup>11</sup> Pew Research Center, Home Broadband 2013 (Aug 2013) at 3. In comparison, census data from the same year show a broadband adoption rate of 60% for African Americans and 66% for Hispanics. See Computer and Internet Use ACS November 2014 Report at Table 1. These differences are partially explained by the more expansive definition of broadband used by the ACS, but more data is needed.

<sup>12</sup> Computer and Internet Use ACS November 2014 Report at Table 1.

<sup>13</sup> *Id.*

<sup>14</sup> <http://connecthome.hud.gov/>

<sup>15</sup> [www.everyoneon.org](http://www.everyoneon.org)

<sup>16</sup> <https://internetessentials.com/>

low-cost broadband, digital literacy training with relevant content and services, low-cost computers and public access computing centers.<sup>17</sup>

Adding together low-cost devices, relevant digital content and services, and sustainable public access infrastructure that provides ongoing support for broadband adoption and utilization provides a more complete equation for building digital opportunity for all. For people with disabilities, assistive technology (e.g., screen-reading software and oversize keyboards) also must be considered as part of the package. Tying these pieces together is John Horrigan's 2012 analysis "Broadband Adoption and Usage: What Has Four Years Taught Us?"<sup>18</sup> He writes that barriers to broadband adoption are more complex than were thought, and broadband non-adopters are not monolithic (and shouldn't be treated as if they were).

As the Commission considers how to address the digital literacy barrier, we would note three issues often not recognized or adequately addressed: 1) digital literacy must be based on a foundation of basic literacy; and 2) digital literacy and utilization continually evolve; and 3) digital literacy programs must be flexible with individually and, culturally relevant material.

**Basic literacy is essential.** It is estimated that 14 percent of American adults—or 32 million people—are unable to read.<sup>19</sup> Literacy remains central to the ability to learn, grow and achieve in society. Libraries support all literacies—from basic reading and writing to digital literacy to literacies in specialized areas like health, financial or government information. Libraries (often in collaboration with other community partners) "meet people where they are" (e.g., ranging from basic literacy to basic computer skills to more advanced knowledge related to coding or media creation) and provide supports that deepen the literacy skills needed for people to survive and thrive in the digital age.

As the ALA Digital Literacy Task Force noted in 2013: "It cannot be overstated that digital literacy must include mastery of traditional literacy. Although digital literacy skills will necessarily change as technology evolves, being digitally literate will continue to require basic reading and writing skills, access to up-to-date digital instruction, and a commitment to lifelong learning."<sup>20</sup>

Recommendation: 1) Explicitly recognize the connection between digital literacy and basic literacy as part of digital inclusion planning, and 2) include adult literacy stakeholders in planning to address broadband adoption. An example of this kind of collaboration may be found in Chicago: <http://www.smartchicagocollaborative.org/ideas-for-collaboration-between-digital-literacy-traditional-literacy-organizations/>

**Digital literacy is a continuum.** Digital literacy is the ability to use information and communication technologies to find, understand, evaluate, create, and communicate digital information; it requires both technical *and* cognitive skills.<sup>21</sup> The skills needed to thrive online will continue to evolve as devices, services and applications evolve and emerge, so "learning to learn" is key to true digital literacy.

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<sup>17</sup> Rhinesmith, Colin. (January 2016) "Digital Inclusion and Meaningful Broadband Adoption Initiatives." Evanston, IL: Benton Foundation, January 2016. [benton.org/broadband-inclusion-adoption-report](http://benton.org/broadband-inclusion-adoption-report)

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[https://moody.utexas.edu/sites/communication.utexas.edu/files/images/content/tipi/Horrigan.FCC\\_Summit.02.06.pdf](https://moody.utexas.edu/sites/communication.utexas.edu/files/images/content/tipi/Horrigan.FCC_Summit.02.06.pdf) . Also NTIA broadband adoption toolkit: "These barriers are cross-cutting, and many individuals cite more than one barrier as a reason for non-adoption." [http://www2.ntia.doc.gov/files/toolkit\\_042913.pdf](http://www2.ntia.doc.gov/files/toolkit_042913.pdf)

<sup>19</sup> [http://www.huffingtonpost.com/2013/09/06/illiteracy-rate\\_n\\_3880355.html](http://www.huffingtonpost.com/2013/09/06/illiteracy-rate_n_3880355.html)

<sup>20</sup> [http://www.districtdispatch.org/wp-content/uploads/2013/01/2012\\_OITP\\_digilitreport\\_1\\_22\\_13.pdf](http://www.districtdispatch.org/wp-content/uploads/2013/01/2012_OITP_digilitreport_1_22_13.pdf)

<sup>21</sup> [http://www.districtdispatch.org/wp-content/uploads/2013/01/2012\\_OITP\\_digilitreport\\_1\\_22\\_13.pdf](http://www.districtdispatch.org/wp-content/uploads/2013/01/2012_OITP_digilitreport_1_22_13.pdf) , p2

“Now the half-life of a skill is down to about five years, and genres have a lifetime of four or five years, so most learning in the future won’t go on in schools,” said John Seely Brown, codirector of the Deloitte Center for the Edge, in *Rising to the Challenge: Re-Envisioning Public Libraries*.<sup>22</sup> “We’ve shifted from stable stocks of knowledge and an archived world to a world of information flows, participation and states of confusion. Now we create as fast as we learn. The game is more complicated.” The report goes on to say: “A state of information abundance places a premium on the ability to navigate, create and innovate in this new environment. In this environment, success will belong to the “entrepreneurial learner,” the person capable of finding resources anywhere and using them to read the world and teach themselves.”<sup>23</sup>

The continuum also implies that people start in different places and thus will have different digital literacy starting points and ways of learning. This demands that a range of curricula and learning activities in many languages, as well as multiple modes of learning, be available. One example of the range of training topics (in English and Spanish) in public libraries can be found at Denver Public Library: <https://www.denverlibrary.org/technology-classes>. The 2014 Digital Inclusion Survey National Report documents varying modes of technology training and support available through public libraries: informal assistance as needed, one-on-one training by appointment, formal training classes, and online technology training (e.g., free access to subscription services like Lynda.com or Microsoft certification classes).<sup>24</sup> In another example, the St. Paul, Minnesota, public library offers formal training including basic digital literacy, job search, and micro business development. Classes are supplemented with a variety of one-on-one support, including open computer lab sessions staffed by a librarian; walk-in computer help staffed by a technology education volunteer, computer classes for older adults in partnership with the Community Education Senior Program, adult learning labs for job skills, classes for teens run by a “teen tech crew,” and computer basics practice groups for patrons needing extra time to practice.

Finally, even navigating and evaluating offers from broadband providers is a barrier for broadband adoption. The consumer broadband labels introduced by the Commission in April 2016<sup>25</sup> are a step in the right direction to improve transparency and provide a simple, familiar format for consumers to make more informed decisions among available offers.

If we fail to work from this understanding of a digital literacy continuum, then we risk closing one digital divide (e.g., affordable access to broadband) but failing to address another (e.g., gap in people able to code and create online content that represents them and their experiences).

Recommendation: Increase awareness of the need for and promote a wide range of digital literacy curricula and modes of learning (e.g., learning facilitated by trained staff, opportunity for individual practice, hands-on access to technology tools, and peer-to-peer learning) so that people may pursue a personalized path of learning. Because of the rapid evolutionary nature of technology, learners must also have access to opportunity for developing advanced digital skills that reflect current marketplace and education trends. Also, the consumer broadband labels should

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<sup>22</sup> <http://csreports.aspeninstitute.org/documents/AspenLibrariesReport.pdf>

<sup>23</sup> The concept of the “entrepreneurial learner” was introduced by John Seely Brown, cochair of the Deloitte Center for the Edge. See John Seely Brown, “Re-Imagining Learning for a World of Constant Change: The 21st Century Entrepreneurial Learner.” Presentation to first working group meeting of Dialogue on Public Libraries, Aspen Institute, August 4, 2013, <http://www.aspeninstitute.org/sites/default/files/content/upload/JSB%20Libraries%20Presentation.pdf>.

<sup>24</sup> Bertot, J.C., Real, B., Lee, J., McDermott, A.J., & Jaeger, P.T. (2015). 2014 Digital Inclusion Survey: Findings and Results. College Park, MD: Information Policy & Access Center, University of Maryland College Park. Available at <http://digitalinclusion.umd.edu/> (Figures 26 and 27)

<sup>25</sup> [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-338708A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-338708A1.pdf)

be widely adopted so that consumers can rely on this information (or similarly straightforward and transparent broadband subscription information) being available from all providers.

**Online safety and privacy are growing concerns.** Online safety has been an embedded element of digital literacy from the beginning, particularly in relation to children coming online. In the wake of widely publicized government monitoring of electronic communications, data breaches and cyber hacks, and digital identity theft, however, privacy and security fears are impacting broadband adoption and utilization more broadly. The May 2016 analysis from the National Telecommunications and Information Administration (NTIA) cited that a lack of trust in Internet privacy and security may deter online activities. Forty-five percent of online households reported that privacy and security concerns stopped them from conducting financial transactions, buying goods or services, posting on social networks or expressing opinions on controversial or political issues via the Internet.<sup>26</sup> As the Internet of Things explodes, addressing privacy and security issues also will be important to support wide adoption.

Recommendation: Recognize and promote online privacy and security as *essential* digital skills, and engage stakeholders knowledgeable in this area as part of digital inclusion efforts. Leverage existing curriculum that address these concerns, such as the Public Library Association's DigitalLearn.org<sup>27</sup> modules and Digital IQ<sup>28</sup> from the Council of Better Business Bureaus.

**Relevance is contextual and cultural.** Because the Internet is an aggregate of what we put on it, historically offline communities (including people of color, people with disabilities and older Americans) may be particularly affected by questions of relevance. This demands that we consider digital literacy in terms of creating digital content, as well as consuming it. What marginalized communities may find online often is not framed from their perspective or even in their own language. What is reflected back to these individuals in terms of online content and cultural norms? The Sustainable Heritage Network<sup>29</sup> and Mukurtu CMS<sup>30</sup>, for instance, deal directly with the challenges faced by tribal archives, libraries and museums in providing access to their digital heritage using tribal-specific cultural protocols. It should be noted, of course, that many tribal communities still lack basic access<sup>31</sup> to high-speed broadband, so access and adoption efforts should work hand in hand to bring affordable access and culturally relevant training and content to tribal members. The 2013 Census finds that only 58% of Native American households report Internet *use* (not adoption), compared to a national average of 74%.<sup>32</sup>

Basic literacy and personal relevance may be the most significant barriers for those who lag furthest behind in adoption, and should be considered as part of a robust digital inclusion plan.

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<sup>26</sup> <https://www.ntia.doc.gov/blog/2016/lack-trust-internet-privacy-and-security-may-deter-economic-and-other-online-activities>

<sup>27</sup> DigitalLearn.org is an Institute of Museum of Library Services grant-funded project to create an online hub for digital literacy support and training. The site launched in June 2013 and is intended to build upon and foster the work of libraries and community organizations as they work to increase digital literacy across the nation. Available at: [www.digitallearn.org](http://www.digitallearn.org).

<sup>28</sup> The Council of Better Business Bureaus (BBB) launched Digital IQ to help consumers easily access information they want on the Internet, avoid hackers and malicious software, express buying preferences, exercise informed choices, and shop smart. Available at: <https://www.bbb.org/council/digitaliq/>.

<sup>29</sup> <http://sustainableheritagenetwork.org/>

<sup>30</sup> <http://mukurtu.org/>

<sup>31</sup> <https://www.fcc.gov/news-events/blog/2016/08/15/tackling-connectivity-challenges-rural-america-my-journey-new-mexico-and>

<sup>32</sup> [https://www.whitehouse.gov/sites/default/files/wh\\_digital\\_divide\\_issue\\_brief.pdf](https://www.whitehouse.gov/sites/default/files/wh_digital_divide_issue_brief.pdf)

Often community members come to the library to solve a specific need at a specific moment – someone needs to fill out a job application and submit it online but does not have an email account nor knows how to attach a document to an email; or someone has been told to renew her immigration status but she does not know how to find the forms on the government website. Providing contextualized and highly relevant training support provides an entree for the person to be introduced to the idea of participating in a class on basic skills needed for employment, for example, that would reinforce the one-on-one help and tie formal training to a specific desired skill.

Not only does informal training often open a door to deeper training, it allows new users to practice and reinforce skills in a way that is personally relevant. Libraries consistently report that providing support for their patrons to be able to do a specific task online (e.g., apply for the federal Temporary Assistance for Needy Families program, monitor a child’s progress in school, renew certifications for work) is a critical daily task for librarians and library staff.

Recommendation: Include diverse cultural perspectives in addressing relevance concerns, including empowering new digital content creation and dissemination. Enlist stakeholders from representative groups in efforts to create inclusive curricula and programs. Further, in the near term, efforts need to address the lack of diversity in STEM (science, technology, engineering, and math) fields and focus on ensuring culturally relevant programs and materials are available.

***Digital literacy also boosts meaningful Internet use.*** In addition to addressing a barrier to broadband adoption for many, digital literacy training also boosts meaningful Internet use. In the 2015 report of Comcast Internet Essentials (IE) customers, *Deepening Ties*, John Horrigan, notes that: “Those who receive formal training from an IE program, library, or other institution (as opposed to informal assistance from family or friends) were significantly more likely to use the Internet to pursue economic opportunities and cultivate social ties. Those who received formal training were 15 percentage points more likely to use the Internet to look for a job, 14 percentage points more likely to use it to access government services, and 12 percentage points more likely to use it to connect with family and friends. Some 31% of IE families report taking advantage of training, highlighting the need to do more. *There is an opportunity for all—community organizations, banks, schools, the government, tech companies and Internet service providers—to develop digital literacy programs or promote existing training programs, such as that provided by Comcast, to the broader population of non-broadband adopters.*”<sup>33</sup> (Emphasis added.)

### **FCC assets and opportunities**

Clearly many of these issues, such as building basic literacy, are beyond the scope of the Commission, but are critical to meeting the goals of a robust digital inclusion plan. There are many ways in which the Commission could leverage its assets to reduce these barriers, including:

Use its bully pulpit to increase public awareness about the need for and economic value of broadband adoption; highlight effective adoption efforts; recognize and promote digital literacy providers like libraries to funders and state and local government authorities that can help sustain and grow their efforts. As the self-described “primary authority for communications laws, regulation and technological innovation,” the Commission plays a significant national agenda-setting role and an ability to call attention to pressing issues related to broadband access and adoption—particularly in relation to digital equity and national economic competitiveness. The FCC should “marry” issues of affordable high-speed broadband access with broadband adoption and utilization via its communications and convenings.

- Expand consumer information, outreach and education that support broadband adoption—both through the FCC’s own website and materials and by effectively leveraging aligned government

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<sup>33</sup> <http://corporate.comcast.com/images/comcast-ie-report-2-horrigan.pdf> p. 2



(e.g., NTIA Broadband Adoption Toolkit) and trusted noncommercial resources (e.g., EveryoneOn, DigitalLearn.org, Digital IQ). Further, the development of the Lifeline National Verifier database by the Universal Service Administrative Company (USAC) also provides an immediate opportunity to build in relevant information and education. Not only can this centralized resource help consumers research available Lifeline providers, establish their eligibility, and track their enrollment—but it could link them noncommercial information about low-cost devices and digital literacy training opportunities. If there is not a concerted and diverse outreach effort to increase awareness of the Lifeline program and its new broadband subsidy, eligible and needy Americans will certainly miss the opportunity to connect. Trusted local institutions such as libraries and schools should be included in these outreach efforts, and visually appealing, culturally diverse and multilingual materials should be made available to share with residents.

- Strongly encourage and guide Eligible Telecommunications Carriers (ETCs) in the Lifeline program to support broadband adoption efforts through libraries, schools and other non-profit entities. ETCs should provide and widely distribute simple, clear information about broadband costs and terms available to Lifeline participants and work with these trusted community partners to support training opportunities. As the ALA noted in its public comments<sup>34</sup> in the Lifeline Modernization proceeding, libraries could provide space and technical support for a “Lifeline Navigator” to set up during specific “office hours” to enroll consumers in Lifeline. The library could advertise the upcoming (or ongoing) site times through its regular outreach channels. Additionally through its routine services, the library could provide access to general information about the Lifeline program and eligible services, public computers, and training on setting up an email account. A relevant example of libraries supporting patron access to a specific government program can be found in recent efforts to expand enrollment in health insurance exchanges.<sup>35</sup>
- Build and strengthen collaborations with other federal agencies, including IMLS, NTIA, and the Department of Education. Encourage agencies to share resources, including relevant research and data that can help prioritize areas of need. Encourage agencies to develop complementary programs or initiatives. Investments should be coordinated so that efforts are not duplicated, and available resources are maximized efficiently. The recent Broadband Opportunity Council provides a model for this kind of cross-agency collaboration and focused look at broadband access, adoption and use.
- Convene diverse stakeholders (public, private and government agencies, representatives from underserved communities, ISPs, and funders) to review and activate the Commission’s digital inclusion plan. Regional field hearings also should be held to extend conversation and connect digital inclusion partners beyond the Beltway. There should be mechanisms for public comment and refinement of the plan (e.g., public notice or notice of inquiry). As one key discussion item, discuss how we might develop an inclusive measure of broadband adoption<sup>36</sup> as a way to measure national progress and identify gaps that demand additional attention.
- Improve data gathering and research to better understand gaps and measure progress over time. For instance, add a question to Form 477 regarding whether or not Internet service providers (ISPs) provide low-cost broadband options, along with a URL for consumer information to any

<sup>34</sup> <https://ecfsapi.fcc.gov/file/60001223331.pdf>

<sup>35</sup> See for example the Topeka & Shawnee Public Library Health Insurance Marketplace Information webpage. Available at <http://tscpl.org/health/health-insurance-marketplace-information>. See also the DC Public Library Affordable Care Act webpage. Available at <http://dclibrary.org/healthcare>.

<sup>36</sup> <http://oats.org/white-papers/toward-an-inclusive-measure-of-broadband-adoption/>

offerings. This data should also be publicly available through FCC consumer pages, the anticipated national verifier database for the Lifeline program, and/or trusted noncommercial sources such as EveryoneOn.

- Explore how the Universal Service Fund and/or merger obligations can be leveraged to address non-price barriers to broadband adoption. Section 254(h)(2)(A), particularly, requires the FCC to establish rules “to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services.” Enhance can encompass a lot of digital inclusion strategies, and these should be considered and explored. Sustainable funding to support and expand broadband adoption efforts and digital literacy training is a challenge, particularly in light of the need for one-on-one help and customized learning in many cases.

### **Conclusion**

The Lifeline modernization proceeding took a large step toward addressing the price barrier to broadband adoption for millions of Americans by providing monthly subsidies for broadband offered by qualifying providers to eligible low-income households. By charging the CGB with developing a robust digital inclusion plan, the Commission also marked its commitment to consider *all* of the barriers—including digital literacy and relevance. The library community applauds these efforts, and welcomes the opportunity to advance digital opportunity with CGB and the Commission.

We respectfully recommend the digital inclusion plan:

- Not reinvent the wheel. Instead, leverage, highlight and strengthen existing resources, particularly among and with trusted community partners.
- Specifically recognize the importance of basic literacy and an evolving spectrum of digital literacy in advancing broadband adoption and use.
- Collaborate within *and* beyond the Beltway. Take both a bottoms-up and top-down approach to engaging and convening diverse digital inclusion stakeholders.
- Look to libraries (and other trusted community partners) to ensure public access, outreach about available local Lifeline programs for low-income Americans, and diverse digital learning opportunities for all ages and backgrounds.

While digital inclusion efforts must look back and around to avoid duplication and ensure all Americans have broadband access and digital literacy to make use of technology, we must also look forward. As new technologies, services, and business models emerge, how may we diffuse exposure and knowledge as quickly as possible to extend beyond the early adopters and other privileged people? Libraries have a rich history of democratizing information access and learning opportunities, and look forward to continuing this leadership role in the future.

Regards,



Larra Clark  
Deputy Director  
American Library Association  
Office for Information Technology Policy



## APPENDIX OF SELECTED, RELEVANT RESEARCH (with annotations and links)

### *American Library Association and Information & Policy Access Center, University of Maryland*

The 2013 and 2014 Digital Inclusion Survey, funded by the Institute of Museum and Library Services, caps nearly 20 years of research on the technology resources offered through U.S. public libraries. [www.digitalinclusion.umd.edu](http://www.digitalinclusion.umd.edu) and <http://www.ala.org/research/digitalinclusion>.

#### **Information Policy & Access Center, The Digital Inclusion Survey, Oct. 1, 2015,** <http://digitalinclusion.umd.edu/sites/default/files/uploads/2014DigitalInclusionSurveyFinalRelease.pdf>

The report documents survey evidence of how libraries help close the digital divide through digital readiness and digital inclusion efforts. In addition to access to the Internet and other technologies, the vast majority of public libraries offer training in basic computing and Internet skills, typically on an as-needed basis through informal interactions. Libraries provide formal classes for more advanced topics, such as web development and content creation.

- **Public Libraries & Digital Inclusion,**  
<http://digitalinclusion.umd.edu/sites/default/files/DigitalInclusionBrief2015.pdf>  
The brief provides statistics on how libraries engage in digital inclusion. Digital inclusion consists of policies, programs, and actions that, among other things, promote digital literacy. The digital literacy services help individuals navigate, understand, evaluate, and create digital content using a range of information and communications technologies.

Also, additional related resources from the American Library Association

- **After Access: Libraries and Digital Empowerment, December 2015,**  
[http://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/ALA%20DI%20After%20Access\\_final\\_12%2017%2015.pdf](http://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/ALA%20DI%20After%20Access_final_12%2017%2015.pdf)  
This paper provides a summary of presentations, discussions and resources from After Access: Libraries & Digital Empowerment Summit held on June 25, 2015, at the ALA Annual Conference in San Francisco. Participants affirmed that digital information and skills are now woven into most all library services, that the need for library staff and clients to continue to deepen their skills will only escalate, and that the role of providing free access to information and services for everyone remains central to the mission and culture of libraries.
- **Digital Literacy, Libraries, and Public Policy, January 2013**  
[http://www.districtdispatch.org/wp-content/uploads/2013/01/2012\\_OITP\\_digilitreport\\_1\\_22\\_13.pdf](http://www.districtdispatch.org/wp-content/uploads/2013/01/2012_OITP_digilitreport_1_22_13.pdf)  
This report provides a broad overview of the role of libraries in digital literacy. It examines the the interrelationships among digital inclusion, education, lifelong learning, and workforce development. The report then outlines in turn issues and opportunities specific to school (K-12), academic (higher-education), and public libraries with respect to supporting and fostering digital literacy. A separate conclusions and recommendations report was issued in June 2013:  
[http://www.districtdispatch.org/wp-content/uploads/2013/06/2013\\_dltf\\_recommendations.pdf](http://www.districtdispatch.org/wp-content/uploads/2013/06/2013_dltf_recommendations.pdf).

### *Institute of Museum and Library Services*

IMLS provides a wide range of research and data on the roles of libraries in relation to public Internet access, including:

**Becker, Samantha, Michael D. Crandall, Karen E. Fisher, Bo Kinney, Carol Landry, and Anita Rocha. (2010). Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries. (IMLS-2010-RES-01). <https://www.ims.gov/publications/opportunity-all-how-american-public-benefits-internet-access-us-libraries>**

This report describes the characteristics of people who use public access computers and Internet connections in libraries, the types of use they engage in, and the impact that use has on their own lives, that of their families and friends, and the communities they live in. The study finds that 77 million people used the internet in public libraries in one year to meet their needs in health, education, employment, and other important areas.

### *Pew Research Center*

The Pew Research Center has conducted a wide range of research related to Americans' perceptions and use of libraries, particularly in relation to technology and learning. This body of work speaks to the role of public libraries at a trusted community resource for technology access, digital content and services (e.g., e-books, online job training), and librarian expertise. <http://www.pewinternet.org/topics/libraries/>

**Lee Rainie, "How the Public Grades Libraries—and Uses Libraries." Pew Research Center, June 2016, Available at: <http://www.pewinternet.org/2016/06/27/how-the-public-grades-libraries-and-uses-libraries/>**

Presentation providing broad overview of American perceptions and use of public libraries, including the finding that 80 percent of people believe libraries should "definitely" offer programs to teach people how to use digital tools.

**Lee Rainie, "Libraries and Learning." Pew Research Center, April 2016, Available at: <http://www.pewinternet.org/2016/04/07/libraries-and-learning/>**

Statistics on Americans' perceptions of libraries' educational and learning roles in their communities, specifically, in terms of whether libraries meet their learning and educational needs. The statistics also report on the types of library user, the different perceptions between income and ethnic groups, and Americans' knowledge of what libraries offer to patrons.

**Anna Brown and Mark Hugo Lopez, "Public Libraries and Hispanics," Pew Research Center, March 2015. <http://www.pewhispanic.org/2015/03/17/public-libraries-and-hispanics/>**

Statistics on immigrant Hispanics, including their rate of library usage, their overall feelings about libraries, their views on the importance and impact of libraries and library services to their families and communities, their rates of access to libraries, and how they use libraries and consume information.

**Kathryn Zickuhr, Lee Rainie, and Kristen Purcell, "Library services in the digital age," Pew Research Center, Jan. 22, 2013, [http://libraries.pewinternet.org/files/legacy-pdf/PIP\\_Library%20services\\_Report.pdf](http://libraries.pewinternet.org/files/legacy-pdf/PIP_Library%20services_Report.pdf)**

Statistics on the role of libraries in people's lives and communities, what people do at libraries and library websites, changes in uses at libraries, the technology use at libraries, what people want from their libraries (e.g., priorities for libraries), and the present and future of libraries.

### *Aspen Institute*

**Amy K. Garmer, "RISING TO THE CHALLENGE: Re-Envisioning Public Libraries, A report of the Aspen Institute Dialogue on Public Libraries," Oct. 2014, <http://csreports.aspeninstitute.org/documents/AspenLibrariesReport.pdf>**

The report explores the essential role of public libraries in a digital world and offers a process to re-envision the 21st century library in a hyper-connected digital age. The report attempts to raise the profile

of public libraries to the center of the knowledge society, highlight the opportunities and possibilities, increase support for an expanded library role in a networked world and spark a national conversation and action to re-envision the 21st century library as a center of learning, innovation and creativity. To achieve the 21<sup>st</sup> century vision of libraries, it also offers 15 steps for library leaders, policymakers, and the community.

### *Digital Inclusion research that references libraries*

**Rhinesmith, Colin. “Digital Inclusion and Meaningful Broadband Adoption Initiatives.” Evanston, IL: Benton Foundation, Jan. 2016. [benton.org/broadband-inclusion-adoption-report](http://benton.org/broadband-inclusion-adoption-report)**

A national study of eight digital inclusion organizations that help low-income individuals and families adopt high-speed Internet service found that cost remains the most significant barrier to broadband adoption. Low-income individuals/households view their “ability to pay” as more relevant than their “willingness to pay.” Moreover, low-cost or free computers are often just as important as having access to low-cost or free Internet options. Digital inclusion organizations attempt to connect digital literacy training with relevant content and services. Operating public access computing centers is beneficial: they enable residents to access technology in places where they feel comfortable and supported; they complement digital literacy classes; and their convenient locations and helpful staff prove valuable to residents. Citywide and regional digital inclusion initiatives and working with community partners are important, but funding support remains an issue for the initiatives and the digital inclusion organizations.

**John B. Horrigan, Digital Readiness: Nearly one-third of Americans lack the skills to use next-generation “Internet of things” applications (June 2014),**

**[http://jbhorrigan.weebly.com/uploads/3/0/8/0/30809311/digital\\_readiness.horrigan.june2014.pdf](http://jbhorrigan.weebly.com/uploads/3/0/8/0/30809311/digital_readiness.horrigan.june2014.pdf)**

Digital readiness is a bigger problem than the digital divide. The digital divide will diminish in size but the digital skills problem will remain sizable for some time. Digital readiness is strongly linked to low levels of online behavior. 29% of Americans have low levels of digital skills; 42% of Americans have moderately good levels of digital skills; 29% of Americans have high levels of digital skills. Horrigan recommends: complementary investments in digital readiness by government agencies; to leverage existing programs; to ensure communities have “tech champions” to advocate for digital readiness; use libraries; to engage the philanthropic sector on digital readiness; to not focus on a “one size fits all” solution; to build capacity to teach people; and to use information and communications technology to enhance digital readiness.

### *Additional Digital Inclusion Research (national)*

**Victoria Rideout and Vikki S. Katz, *Opportunity for All? Technology and Learning in Lower-Income Families*, The Joan Ganz Cooney Center at Sesame Workshop, Winter 2016,**

**[http://www.joanganzcooneycenter.org/wp-content/uploads/2016/01/jgcc\\_opportunityforall.pdf](http://www.joanganzcooneycenter.org/wp-content/uploads/2016/01/jgcc_opportunityforall.pdf)**

A survey of lower-income households with school-aged children (ages 6-13) regarding digital connectivity issues, from the types of Internet connectivity, the use of technology, the types of digital inequalities, perceptions of the Internet, the rate at which they take advantage of discounted services, and their perceptions of and experiences with such services.

**John B. Horrigan, Deepening Ties (Jan. 2015) [Funded by The Comcast Technology Research & Development Fund], <http://corporate.comcast.com/images/comcast-ie-report-2-horrigan.pdf>**

Survey research on low-income families who have broadband service through Comcast’s Internet Essentials (IE) program revealed the significant positive impact formal training has on digital literacy or the development of solid Internet skills, which, in turn, can help improve their quality of life, professional opportunities, and financial security. About 31% of IE users have had formal Internet-related training, with 18% of them receiving it through the library. Those who received formal training from an IE

program, library, or other institution were significantly more likely to use the Internet to pursue economic opportunities and cultivate social ties. For instance, they were 15 percentage points more likely to use the Internet to look for a job, 14 percentage points more likely to use it to access government services, and 12 percentage points more likely to use it to connect with family and friends. The report recommends investment in community institutions, such as libraries, as an effective, efficient, and affordable way to provide the necessary training. A majority of IE users were interested in receiving digital skills training.

**Adie Tomer and Joseph Kane, Broadband Adoption Rates and Gaps in U.S. Metropolitan Areas, Metropolitan Policy Program at Brookings (Dec. 2015),**  
<http://www.brookings.edu/~media/research/files/reports/2015/12/07-broadband/broadband-tomer-kane-12315.pdf>

Individuals without a private Internet subscription or digital skills are at a disadvantage when it comes to accessing economic opportunity. Expanding digital skills curricula and training are equally important—and they should extend across entire metro areas. Community assets like libraries are especially important in this respect, by providing public Internet access and representing centers for training.

**Aaron Smith, “Lack of broadband can be a key obstacle, especially for job seekers,” Pew Research Center, Dec. 28, 2015,** <http://www.pewresearch.org/fact-tank/2015/12/28/lack-of-broadband-can-be-a-key-obstacle-especially-for-job-seekers/>

Statistics on perceptions of the challenges non-broadband adopters face finding and applying for jobs.

**John Horrigan, “The numbers behind the broadband ‘homework gap’,” Pew Research Center, Apr. 20, 2015,** <http://www.pewresearch.org/fact-tank/2015/04/20/the-numbers-behind-the-broadband-homework-gap/>

Statistics on the homework gap, specifically, households with school-age children that lack broadband access.

**John B. Horrigan and Maeve Duggan, “Home Broadband 2015,” Pew Research Center, Dec. 21, 2015,** <http://www.pewinternet.org/2015/12/21/home-broadband-2015/>

Statistics on home broadband adoption, smartphone use, views on the importance or value of broadband, views on the challenges of smartphone-only use, and barriers to broadband adoption.

**Aaron Smith, “Searching for Work in the Digital Era,” Pew Research Center, Nov. 19, 2015,** <http://www.pewinternet.org/2015/11/19/searching-for-work-in-the-digital-era/>

Statistics on the importance of the Internet to find employment and the level of confidence in having the digital skills to seek and apply to jobs online.

**Aaron Smith, “Older Adults and Technology Use,” Pew Research Center, Apr. 3, 2014,** <http://www.pewinternet.org/2014/04/03/attitudes-impacts-and-barriers-to-adoption/>

Statistics on how older adults (i.e., seniors) use technology (including broadband adoption and Internet use rates), the difficulties and challenges they face in using technology, barriers to Internet adoption, and their perceptions of the Internet.

**Aaron Smith, “African Americans and Technology Use,” Pew Research Center, Jan. 6, 2014,** <http://www.pewinternet.org/2014/01/06/african-americans-and-technology-use/>

Statistics on African-Americans’ Internet access, use, and adoption.

**Kathryn Zickuhr, “Who’s Not Online and Why,” Pew Research Center, Sept. 25, 2013,** <http://www.pewinternet.org/2013/09/25/whos-not-online-and-why/>

Statistics on Americans’ Internet use and broadband adoption, perceptions of the Internet, and reasons for not having Internet access.

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**Renee Hobbs, “Digital and Media Literacy: A Plan of Action, A White Paper on the Digital and Media Literacy Recommendations of the Knight Commission on the Information Needs of Communities in a Democracy,” The Aspen Institute (2010), [http://www.knightcomm.org/wp-content/uploads/2010/12/Digital\\_and\\_Media\\_Literacy\\_A\\_Plan\\_of\\_Action.pdf](http://www.knightcomm.org/wp-content/uploads/2010/12/Digital_and_Media_Literacy_A_Plan_of_Action.pdf)**

The report presents a set of plans for how to bring digital and media literacy education into formal and informal settings through a community education movement. It defines “digital and media literacy as a constellation of life skills that are necessary for full participation in our media-saturated, information-rich society.” These skills include the ability to (i) Make responsible choices and access information by locating and sharing materials and comprehending information and ideas; (ii) Analyze messages in a variety of forms by identifying the author, purpose and point of view, and evaluating the quality and credibility of the content; (iii) Create content in a variety of forms, making use of language, images, sound, and new digital tools and technologies; (iv) Reflect on one’s own conduct and communication behavior by applying social responsibility and ethical principles; and (v) Take social action by working individually and collaboratively to share knowledge and solve problems in the family, workplace and community, and by participating as a member of a community.

### *ASR Analytics Reports and Case Studies*

**ASR BTOP Evaluation Study, Final Report: Social and Economic Impacts of the Broadband Technology Opportunities Program (Sept. 15, 2014),**

**[https://www.ntia.doc.gov/files/ntia/publications/asr\\_final\\_report.pdf](https://www.ntia.doc.gov/files/ntia/publications/asr_final_report.pdf)**

The study reports on how the BTOP grants have benefited broadband availability and adoption and the grants’ social and economic impacts, specifically, the impacts of Public Computer Centers (PCC) and Sustainable Broadband Adoption (SBA), and Comprehensive Community Infrastructure (CCI) projects. The study summarizes and synthesizes the impacts detailed in 42 case study reports, 2 interim reports, and 1 short-term economic impacts report.

**Public Computer Centers (PCC) and Sustainable Broadband Adoption (SBA) projects**

**<https://www.ntia.doc.gov/report/2015/asr-analytics-reports-and-case-studies>**

The ASR completed 15 (primarily qualitative) case studies on PCC and SBA projects. In addition to explaining the grantees and their projects, the case studies (i) identified how the grantees maximized the impact of the BTOP investment; (ii) identified successful techniques, tools, materials, and strategies used to implement the projects; and (iii) identified any best practices, and gathered evidence from third parties, such as consumers and anchor institutions, as to the impact of the projects in the communities.

### *Additional Digital Inclusion Research (state)*

**Building the Bridge: A Report On The State Of The Digital Divide In The District Of Columbia (2015),**

**[http://connect.dc.gov/sites/default/files/dc/sites/connect/page\\_content/attachments/State%20of%20the%20Digital%20Divide%20Report.pdf](http://connect.dc.gov/sites/default/files/dc/sites/connect/page_content/attachments/State%20of%20the%20Digital%20Divide%20Report.pdf)**

Report on DC’s attempt to overcome its digital divide and digital inclusion efforts, which includes digital literacy programs. It explains how DC has used federal grant funding in its digital inclusion efforts. Now, 75 percent of DC residents have high-speed Internet access at home and more than 8,000 residents have received computer training over the past four years. Residents can also access approximately 100 locations in the city for public computer and Internet use. However, over 160,000 residents, primarily in the poorest neighborhoods, lack high-speed Internet at home. The report documents DC’s strategy and next steps to connect all residents.

**Connected Shelby County, Strategic Technology Plan, Connected Tennessee (Mar. 30, 2010),**  
<http://www.connectedtn.org/documents/ConnectedShelbyCounty-DigitalInclusionReport.pdf>

The report documents the barriers to computer ownership and broadband and Internet adoption. It highlights digital inclusion strategies for low-income households.

**Zero Gravity, A Plan to Digitize Memphis: Research, Experiments, Strategies,**  
[http://assets.contentful.com/5ixqc5kj28me/4PRYdBLmyAC4um8QgMeS4O/a7583679f8cf4c05329de18393d2fcc6/Zero\\_Gravity\\_Report.pdf](http://assets.contentful.com/5ixqc5kj28me/4PRYdBLmyAC4um8QgMeS4O/a7583679f8cf4c05329de18393d2fcc6/Zero_Gravity_Report.pdf)

The report documents broadband adoption rates among different communities, computer ownership rates, and levels of basic digital skills in Memphis. It outlines experiments and strategies to overcome Memphis' digital inclusion problems.

**Oregon Broadband Adoption, Aug. 2014,**  
<https://www.oregon.gov/Broadband/Documents/2014%20Oregon%20Broadband%20Adoption%20Survey%20Report%20Final.pdf>

The report documents Oregonian's rate of home Internet access and use, showing statistics for different age groups, ethnic groups, and income levels. For instance, Oregon's rate of Internet use is 87%, and among these users, 96% access the Internet at home. Among Internet users who don't access the Internet at home, 49% connect at the public library. 45% of Hispanics in Oregon connected to the Internet at the library. Oregonians whose income is under \$30K are more likely to use the Internet at a public library. Among users without home broadband, cost is the main reason for not having it. Among those who've never used the Internet, the main reasons for non-use are related to discomfort and perceived need.